

What is Claimed is:

1. A personal computer data card for insertion into a personal computer to permit
2. data to be transferred between the personal computer and the card, said card comprising:
3. a first layer of a semi-rigid substrate;
4. a second layer of a magnetic medium affixed to said first layer for storing data
5. received from said personal computer such that said second layer covers substantially
6. all of the surface area of a first side of said first layer; and
7. a third layer of protective material affixed to said second layer and permitting
8. access by said personal computer to data on said magnetic medium of said second layer.

1. 2. The card of claim 1 wherein said card has the storage capacity of
2. approximately 0.75 megabytes of data.

1. 3. The card of claim 1 wherein said first layer includes a paper, plastic, or
2. cardstock substrate.

1. 4. The card of claim 3 wherein said third layer includes paper, thermoplastic or
2. a paper/synthetic composite.

1 5. The card of claim 1 further comprising:
2 a fourth layer of a magnetic medium affixed to said first layer for storing data such
3 that said fourth layer covers substantially all of the surface area of a second side of said
4 first layer; and
5 a fifth layer of said protective material affixed to said fourth layer and permitting
6 access to data on said magnetic medium of said fourth layer.

1 6. The card of claim 5 wherein said protective material includes paper having
2 printed text or graphics imprinted on said paper.

1 7. The card of claim 5 wherein said card has a storage capacity of approximately
2 1.44 megabytes of data.

1 8. The card of claim 5 wherein said third and fifth layers include paper,
2 thermoplastic or a paper/synthetic composite.

1 9. The card of claim 8 wherein said third and fifth layers include paper having
2 printed text or graphics imprinted on said paper.

1 10. An adapter for receiving a stand alone magnetic data card and subsequently
2 being inserted into a floppy disk drive to enable said floppy disk drive to perform data
3 operations on said card comprising:

4 an outer shell having dimensions compatible with said floppy disk drive and at least
5. one window for exposing said card to read/write heads of said floppy disk drive;
6 insertion means for enabling said card to be inserted into and withdrawn from said
7 outer shell;
8 rotation means disposed within said outer shell for rotating said card about an axis
9 perpendicular to the plane of said card within said outer shell;
10 securing means for affixing said card to said rotation means; and
11 alignment means for maintaining alignment of said card during rotation by said
12 rotation means.

1 11. The apparatus of claim 10 wherein said adapter is permanently disposed in
2 said floppy disk drive such that said card is directly inserted into said floppy disk drive to
3 enable said disk drive to perform said data operations via said adapter.

1 12. The adapter of claim 10 wherein said insertion means includes a drawer for
2 holding said card and selectively moving said card laterally into and out of said outer
3 shell; and
4 wherein said drawer includes a window for exposing said card to read/write heads
5 of said floppy disk drive.

1 13. The adapter of claim 10 wherein said outer shell includes a first and second
2 member and said insertion means includes a hinge connecting said first and second

3 members such that said card is inserted and removed from said outer shell in response
4 to said members being pivoted about said hinge.

1 14. The adapter of claim 13 wherein said securing means includes friction gaskets
2 affixed to said first and second members of said outer shell such that said card is
3 disposed between said gaskets on said rotation means.

1 15. The adapter of claim 14 wherein said card includes an opening and said
2 alignment means includes a pin extending from said rotation means and disposed through
3 said opening in said card.

1 16. The adapter of claim 13 wherein said card includes dual openings disposed
2 through said card and said securing and alignment means includes dual pins extending
3 from said rotation means and disposed within said corresponding dual openings disposed
4 through said card.

1 17. A method of storing and retrieving data from personal computer data cards
2 comprising the steps of:
3 (a) affixing a second layer of a magnetic medium to a first layer of a semi-rigid
4 substrate such that said second layer of magnetic medium covers substantially all of the
5 surface area of a first side of said first layer;

6
7 (b) affixing a third layer of protective material to said second layer such that said
protective material permits access to data on said magnetic medium of said second layer;

8 and

9 (c) storing and retrieving data from said magnetic medium of said second layer.

10 ~~paper including printed text or graphics imprinted on said paper.~~

1 18. The method of claim 17 further comprising the steps of:

2 (d) affixing a fourth layer of a magnetic medium to said first layer such that said
3 fourth layer of magnetic medium covers substantially all of the surface area of a second
4 side of said first layer;

5 (e) affixing a fifth layer of protective material to said fourth layer such that said
6 protective material permits access to data on said magnetic medium of said fourth layer;

7 and

8 (f) storing and retrieving data from said magnetic medium of said fourth layer.

1 19. The method of claim 18 wherein steps (c) and (f) include:

2 storing up to approximately 1.44 megabytes on said card.

1 20. A method for utilizing personal computer data cards as storage media for use
2 in a floppy disk drive of a computer, said method comprising the steps of:

3 (a) inserting said card into an adapter having dimensions compatible to be
4 received in said floppy disk drive;

- 5 (b) inserting said adapter and inserted card into the compatible floppy disk drive
- 6 of said computer;
- 7 (c) rotating said inserted card about an axis perpendicular to the plane of said
- 8 inserted card within said adapter such that said inserted card traverses read/write heads
- 9 of said floppy disk drive;
- 10 (d) securing and aligning said inserted card within said adapter during said
- 11 rotation;
- 12 (e) reading and writing said inserted card by said read/write heads of said floppy
- 13 disk drive;
- 14 (f) removing said adapter from said disk drive; and
- 15 (g) removing said inserted card from said adapter.

1 21. The method of claim 20 wherein said adapter includes a drawer and step (a)
2 includes placing said card in said drawer of said adapter and sliding said drawer into said
3 adapter; and
4 step (g) includes sliding said drawer out of said adapter and removing said inserted
5 card from said drawer.

1 22. The method of claim 20 wherein said adapter includes a first and second
2 member attached by a hinge and step (a) includes opening said adapter by moving said
3 first and second members apart via said hinge and placing said card in said adapter, and
4 closing said adapter by moving said first and second members together; and

5 step (g) includes opening said adapter by separating said first and second
6 members via said hinge and removing said inserted card.

1 23. The method of claim 22 wherein said adapter includes friction gaskets
2 disposed in said first and second members and step (a) includes placing said card
3 between said friction gaskets such that said friction gaskets engage said card upon
4 closing said adapter; and

5 step (d) includes said friction gaskets securing said inserted card during rotation.

1 24. The method of claim 23 wherein said card includes an opening, wherein said
2 adapter includes a pin extending from said second member, and step (a) includes placing
3 said card such that said pin extending from said second member is disposed through said
4 opening in said card; and

5 step (d) includes said pin aligning said inserted card with said rotation means
6 during rotation.

1 25. The method of claim 22 wherein said card includes a pair of openings,
2 wherein said adapter includes a first and second member where a pair of pins extend
3 from said second member, and step (a) includes placing said card such that said pair of
4 pins extending from said second member are disposed through said pair of openings in
5 said card; and

6 step (d) includes said pair of pins securing and aligning said inserted card with said
7 rotation means during rotation.

1 26. The method of claim 20 wherein step (c) further includes the steps of:
2 (c.1) rotating said inserted card to a first location to read a code indicating whether
3 or not a personal computer data card is present;
4 (c.2) in response to an absence of the code indicating an absence of a personal
5 computer data card, displaying a message indicating the personal computer data card is
6 not present;
7 (c.3) in response to a code indicating the presence of the personal computer data
8 card, rotating said inserted card to a second location to read data indicating the shape
9 and format of the inserted card; and
10 (c.4) in response to data indicating the shape and format of the inserted card,
11 controlling the read/write heads by the computer, via software control, to properly track
12 said inserted card during said rotation.

1 27. A method for utilizing personal computer data cards as storage media for use
2 in a floppy disk drive of a computer, said method comprising the steps of:
3 (a) inserting said card into an adapter permanently disposed in said floppy disk
4 drive and having dimensions compatible with said floppy disk drive;

- 5 (b) rotating said inserted card about an axis perpendicular to the plane of said
6 inserted card within said adapter such that said inserted card traverses read/write heads
7 of said floppy disk drive;
- 8 (c) securing and aligning said inserted card within said adapter during said
9 rotation;
- 10 (d) reading and writing said inserted card by said read/write heads of said floppy
11 disk drive; and
- 12 (e) removing said inserted card from said adapter within said disk drive.

- 1 28. A method for controlling read/write heads of a floppy disk drive of a computer
2 for accessing personal computer data cards comprising the steps of:
- 3 (a) inserting a disk into said floppy disk drive;
- 4 (b) rotating said disk to a first location to read a code indicating whether or not said
5 disk is a personal computer data card;
- 6 (c) in response to an absence of the code indicating an absence of said personal
7 computer data card, displaying a message indicating said disk is not a personal computer
8 data card;
- 9 (d) in response to the code indicating said disk is said personal computer data
10 card, rotating said disk to a second location to read data indicating the shape and format
11 of the disk; and

12 (e) in response to data indicating the shape and format of the disk, controlling the
13 . read/write heads by the computer, via software control, to properly track said disk during
14 rotation.

1 29. The method of claim 28 further including the step of:

2 (f) in response to retrieving encoded data from said disk being said personal
3 computer data card, decoding said encoded data and storing said decoded data in a
4 memory of said computer.

1 30. The method of claim 29 further including the step of:

2 (g) in response to retrieving non-encoded data from said disk being said personal
3 computer data card, ignoring said non-encoded data and retrieving data from a next
4 address on said disk.

Add A

Add B